MAXILLARY PALPAL MUSCLES OF CAVE CRICKET *KEMPIOLA SHANKARI* SINHA & AGARWAL (ORTHOPTERA: PHALANGOPSIDAE)[1]

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ABSTRACT: Depressor muscle of fourth and fifth maxillary palpal segments of *Kempiola shankari* is described.

Maxillary muscles of orthoptera have been studied by various workers such as Albrescht (1953), Crampton (1916), Du Porte (1920), Hsu (1931), Misra (1945), Rakshpal (1954), Snodgrass (1928) and Thakare (1961). All of these deal with the description of epigean forms. Richard (1955) studied the muscles of the cave-orthopteran *Macropathus filifer* but did not study the maxillary palpal muscles. However, the number and arrangement of the maxillary muscles of *K. shankari* agree with the description given by Thakare (1961) for *G. bimaculatus.* A characteristic difference has been observed in the insertion of the fourth depressor muscle and in the origin of the fifth depressor muscle.

The fourth depressor is a long slender muscle arising from the inner lateral side of the third maxillary segment. Passing across the segment, it forms a thin apodeme (1F) at the base of the fourth maxillary segment. This apodeme, in addition to being inserted into the base of the fourth segment, crosses the third segment. The depressor of the fifth segment (2), a long slender muscle arising from this apodeme and passing across the whole length of the fourth maxillary segment, is inserted on the inner lateral angle of the base of the fifth maxillary segment. The contraction of this muscle pulls down both the fourth and the fifth maxillary segment at the same time.

In *Gryllus assimilis,* Du Porte (1920) states that within each of the first three segments of the palps, there is both an extensor and a flexor muscle of the palpal segment. In *G. bimaculatus,* Thakare (1961) states there is a single depressor muscle for each of the fourth and the fifth maxillary segments. *K. shankari* also possesses a single depressor muscle for each of the segments, but both depressor muscles are connected with each other by a characteristic apodeme which has not previously been described in any other orthopteran.

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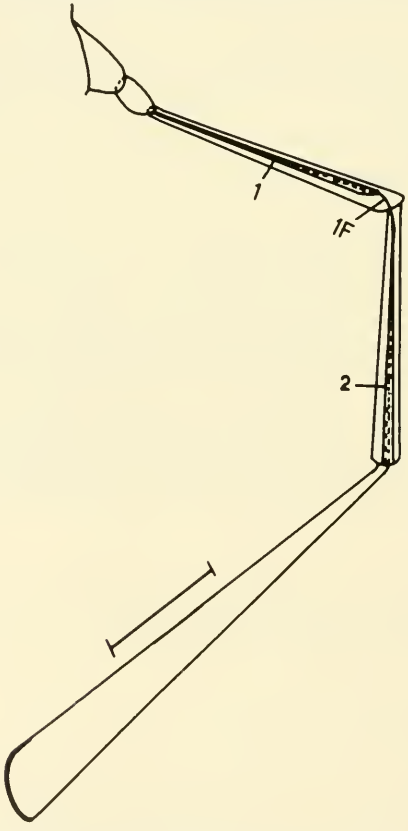

Fig: Maxillary palp showing fourth depressor muscle (1), Fifth depressor muscle (2) and characteristic apodeme (1F). (magnification given is 1 mm.).